LOOPS SOLUTIONS

Solution 1: Hello is printed 2 times.

Solution 2:

```
import java.util.Scanner;
public class Solution {
   public static void main(String[] args) {
       Scanner sc = new Scanner(System.in);

       int number;
       int choice;
       int evenSum = 0;
       int oddSum = 0;

       do {
           System.out.print("Enter the number ");
           number = sc.nextInt();

           if( number % 2 == 0) {
               evenSum += number;
           } else {
               oddSum += number;
           }

              System.out.print("Do you want to continue? Press 1 for yes or 0 for
no");
           choice = sc.nextInt();

       } while(choice==1);

       System.out.println("Sum of even numbers: " + evenSum);
       System.out.println("Sum of odd numbers: " + oddSum);
   }
}
```

Solution 3:

```java
import java.util.Scanner;
public class Solution {
   public static void main(String[] args) {
       Scanner sc = new Scanner(System.in);
       int num; // To hold number
       int fact = 1; // To hold factorial

       System.out.print("Enter any positive integer: ");
       num = sc.nextInt();

       for(int i=1; i<=num; i++) {
           fact *= i;
       }

       System.out.println("Factorial: "+ fact);
   }
}
```

Solution 4:

```java
import java.util.*;
class MultiplicationTable {
   public static void printMultiplicationTable(int number){
       Scanner sc = new Scanner(System.in);
       System.out.print("Enter number:");
       int n = sc.nextInt();
       for(int i=1; i<=10; i++) {
           System.out.println(n + " * " + i + " = " + n*i);
       }
   }
   public static void main(String s[]) {
       printMultiplicationTable(5);
   }
}
```

Solution 5:

Scope of variable is referred to the part of the program where the variable can be used.

In this program variable `i` is declared in the `for` loop. So scope of variable `i` is limited to the `for` loop only that is between `{` and `}` of the `for` loop. There is a display statement after the for loop where variable `i` is used which means `i` is used out of scope. This leads to compilation errors.

The program given will not run and give an error instead. To correct the program, the variable i needs to be declared outside the for loop.